



## **Communicable Disease and Epidemiology News**

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**February 2007**

- **King County Pediatric Influenza Deaths**
- **Cluster of Four Highly Similar Multidrug Resistant HIV Cases**
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### **King County Pediatric Influenza Deaths**

Since Feb 5, 2007, 2 pediatric deaths in previously healthy King County children aged 7 and 8 years were determined by the King County Medical Examiner's Office (KCMO) to be due to influenza-associated myocarditis. The cause of a third death on February 17<sup>th</sup> in a 7-year-old with a history of antecedent influenza infection and a high-risk underlying medical condition was determined to be bacterial pericarditis.

Influenza activity is widespread throughout King County at this time. All age groups are being affected, but our monitoring suggests school-aged children and young adults are being impacted at higher levels than both adults over 64 years of age and infants. School absenteeism and hospital emergency department visits have exceeded levels observed in recent influenza seasons. However, deaths due to influenza among children remain rare, and do not necessarily correspond to absenteeism rates. In fact, this season, despite the high levels of absenteeism in King County schools, area hospitals are not reporting an increase in the numbers of children hospitalized for serious influenza-related complications.

Nationally, 15 pediatric deaths have been reported to the U.S. Centers for Disease Control and Prevention so far this season (not including the King County cases), compared to 48 cases during the 2005-2006 flu season. Approximately 50 to 100 children die of influenza in the U.S. each year. However the location of the communities in which children die is unpredictable. In 2003, a high number (153) children died nationally but we had no deaths locally.

**Because influenza will continue to circulate for several more weeks, healthcare providers should continue to encourage vaccination of unimmunized patients.** In addition, the Advisory Committee on Immunization Practices just recommended that children between 6 months and <9 years of age who received only one influenza vaccination in their first season require 2 vaccinations the following season. With ample vaccine supplies, this is a good time to be sure such children receive their 2<sup>nd</sup> dose this season.

Please report all cases of confirmed or suspected deaths due to influenza in children younger than 18 years of age by calling (206) 296-4774. Please also report unusual severe influenza complications, including myocarditis, among previously healthy people of any age.

### **Cluster of Four Highly Similar Multidrug Resistant HIV Cases**

HIV antiretroviral drug resistance surveillance of treatment-naïve, newly diagnosed patients is conducted at two large local laboratories that account for approximately half of all

new HIV diagnoses. Primary resistance surveillance allows public health to monitor the prevalence of resistant strains among newly-identified cases without treatment experience, identify drug resistant strains that may have increased fitness, and help inform treatment and prevention recommendations. Multiclass drug resistance (MDR) is defined as high-level drug resistance in more than one antiretroviral drug class. Currently only three of the four classes with licensed antiretrovirals are typically included in resistance testing: protease inhibitors (PI), nucleoside reverse transcriptase inhibitors (NRTI) and non-nucleoside reverse transcriptase inhibitors (NNRTI). MDR may be associated with poorer health outcomes and may reduce treatment options.

Among 459 specimens that have been successfully genotyped to date, approximately 11 percent have any high-level drug resistance. In trend data from VARHS, combined with data from earlier resistance projects, we have found the proportion of treatment-naïve patients with high-level drug resistance to be steady at around 11 percent from 1999 through 2006. NNRTI resistance remains the most common drug class, with resistance detected in 9 percent. This compares to 3 percent for both NRTI resistance and PI resistance. Multiple class drug resistance was detected in 16 (3 percent) patients, and 5 (1 percent) patients had high-level resistance in all three drug classes. Eight people had some resistance in all three classes.

**MDR Cluster:** As of January 2007, we identified a small cluster of four people infected with highly similar MDR with resistance to all PIs, all NNRTIs and most NRTIs. Three of the four had evidence of recent HIV infection at the time of their diagnosis and all were antiretroviral naïve. All four are men who have sex with men (MSM) with histories of methamphetamine use and sex with multiple, mostly anonymous partners. We are continuing to work with these patients and providers to locate and test sex partners for HIV. To date, all identified partners have been either not infected with HIV or have an HIV infection not related to this MDR cluster. We are now requesting that all local providers inform Public Health – Seattle & King County of all MDR detected in treatment-naïve patients by calling 206-205-1470. We are also working with additional laboratories to expand drug resistance surveillance efforts. Additionally, in response to this cluster and the widespread interest generated from a press release on the cluster February 1<sup>st</sup>, we are planning a rapid behavioral assessment of MSM in February. This assessment will take place at venues frequented by MSM with HIV or MSM at risk of HIV, including bars, bathhouses, and possibly some medical clinics. Our goal is to find out whether MSM have heard about the cluster, if they think it was important, and if they

plan to, or have made any behavior changes as a result of hearing about the cluster.

HIV treatment guidelines from the United States Department of Health and Human Services recommend drug-resistance testing after a positive HIV test. There is an even stronger recommendation that resistance testing be done prior to the initiation of antiretroviral treatment. Guidelines are available at: [aidsinfo.nih.gov/contentfiles/adultandadolescentgl.pdf](http://aidsinfo.nih.gov/contentfiles/adultandadolescentgl.pdf) For HIV-infected individuals, testing for HIV drug resistance allows clinicians to determine a course of treatment to optimize viral response.

**Multistate Outbreak of Salmonellosis Associated With Consumption of Peanut Butter**

A large multistate outbreak of *Salmonella* serotype Tennessee infections associated with consumption of Peter Pan and Great Value peanut butter is under investigation. Product testing has confirmed the presence of the outbreak strain of *Salmonella* Tennessee in opened jars of peanut butter obtained from ill persons.

FDA advises consumers not to eat any Peter Pan peanut butter purchased since May 2006 and not to eat Great Value peanut butter with a product code beginning with 2111 purchased since May 2006 as these were processed at the same plant. As of February 21<sup>st</sup>, 329 persons infected with the outbreak strain of *Salmonella* Tennessee have been reported to CDC from 41 states. Four cases have been reported in Washington State residents, but none are residents of King County. Among 249 patients for whom clinical information is available, 51 (21 percent) were hospitalized. No deaths have been attributed to this infection. Onset dates, which are known for 224 patients, range from August 1, 2006 to February 2, 2007, and 60 percent of these illnesses began after December 1, 2006.

Most persons infected with *Salmonella* develop diarrhea, fever, and abdominal cramps 12 to 36 hours (range 6 to 72 hours) after infection. The illness usually lasts 4 to 7 days, and most persons recover without treatment. However, in some persons the diarrhea may be so severe that the patient needs to be hospitalized. The elderly, infants, and those with impaired immune systems are more likely to have a severe illness. Antibiotic therapy is generally not indicated because it does not shorten symptoms and may prolong the duration of fecal excretion. However, antibiotic treatment is recommended for infants up to 3 months, the elderly, those with hemoglobinopathies (especially sickle cell disease),

chronic gastrointestinal disease, immune deficiency or suppression, or HIV infection. Patients with continued/high fever or manifestations of extraintestinal infection should also receive antibiotic therapy.

- Public Health recommends that health care providers:
- Be alert for symptoms of *Salmonella* infection.
  - Take a thorough dietary and travel history from persons with suspected bacterial enteritis (even if symptoms are mild), including at this time a history of eating peanut butter.
  - Have a low threshold for obtaining stool cultures, especially for patients with compatible symptoms and a history of consuming peanut butter within 72 hours prior to symptom onset.
  - Report all cases of salmonellosis to Public Health by calling (206)296-4774.

**Clarification:** The January 2007 issue of the *EPILOG* recommended that infants 6 to 11 months of age traveling to a measles endemic area receive a dose of monovalent measles vaccine before departure (MMR may be given). Please note that children who receive MMR before age 12 months will need two more doses of MMR, the first of which should be administered at 12 to 15 months of age.

**Disease Reporting**

AIDS/HIV .....(206) 296-4645  
STDs.....(206) 731-3954  
TB .....(206) 731-4579  
All Other Notifiable Communicable  
Diseases (24 hours a day).....(206) 296-4774  
Automated reporting line  
for conditions not immediately  
notifiable .....(206) 296-4782

**Hotlines**

Communicable Disease.....(206) 296-4949  
HIV/STD .....(206) 205-STD5  
**Public Health Home Page:** [www.metrokc.gov/health/](http://www.metrokc.gov/health/)  
**The EPI-LOG:** [www.metrokc.gov/health/providers](http://www.metrokc.gov/health/providers)  
**Register for the PH Information & Alert Network**  
If you are an actively licensed healthcare provider in King  
County, please register with the Public Health Information &  
Alert Network (IAN). For assistance please send an email to:  
PHSKC\_CDEPI@METROKC.GOV  
Include the words "SUBSCRIBE IAN" in the subject line.

Reported Cases of Selected Diseases, Seattle & King County 2007				
	Cases Reported in January		Cases Reported Through January	
	2007	2006	2007	2006
Campylobacteriosis	23	27	23	27
Cryptosporidiosis	1	2	1	2
Chlamydial infections	548	368	548	368
Enterohemorrhagic E. coli (non-O157)	2	0	2	0
E. coli O157: H7	3	1	3	1
Giardiasis	10	5	10	5
Gonorrhea	178	123	178	123
Haemophilus influenzae (cases <6 years of age)	0	0	0	0
Hepatitis A	0	4	0	4
Hepatitis B (acute)	1	3	1	3
Hepatitis B (chronic)	65	58	65	58
Hepatitis C (acute)	1	0	1	0
Hepatitis C (chronic, confirmed/probable)	111	103	111	103
Hepatitis C (chronic, possible)	33	30	33	30
Herpes, genital (primary)	87	64	87	64
HIV and AIDS (including simultaneous diagnoses with AIDS)	14	13	14	13
Measles	0	0	0	0
Meningococcal Disease	0	1	0	1
Mumps	0	0	0	0
Pertussis	3	16	3	16
Rubella	0	0	0	0
Rubella, congenital	0	0	0	0
Salmonellosis	11	16	11	16
Shigellosis	4	3	4	3
Syphilis	15	19	15	19
Syphilis, congenital	0	0	0	0
Syphilis, late	4	5	4	5
Tuberculosis	6	1	6	1

The *EPI-LOG* is available in alternate formats upon request.